



Oregon Transportation Planning Rule Compliance Analysis OAR 660-012-0060

DRAFT

OAR 660-012-0060(1): Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation would significantly affect an existing or planned transportation facility, the local government shall put in place measures as provided in Section (2) of this rule to assure that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:

- A. Change the functional classification of an existing or planned transportation facility;
- B. Change standards implementing a functional classification system (LOS or v/c);
- C. As measured at the end of the planning period identified in the adopted transportation system plan:
 - 1. Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility.
 - 2. Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or Comprehensive Plan.
 - 3. Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or Comprehensive Plan.

(2) Where a local government determines that there would be a significant effect, compliance with Section (1) shall be accomplished through one or a combination of the following:

- A. Adopting measures that demonstrate allowed land uses are consistent with the planned function, capacity, and performance standards of the transportation facility.

Response: The Oregon Legislature added the Purdin Road urban growth area to the Urban Growth Boundary in 2014. Traffic analysis based on worst case scenario and

assumes entire area develops within planning period. Capacity is 2,132 dwelling units under the worst case scenario for the Purdin Road and David Hill Road areas. The estimated dwelling capacity based on the Planning Commission recommendation is 1,895 units or approximately 89% of the worst case scenario capacity. At 90 dwellings per year, consistent with historical trends, the area wouldn't be built-out for approximately 23 years. This is after the 20-year planning horizon year of 2035.

The planned function of Highway 47 is to operate as a principal arterial roadway and bypass highway. David Hill Road is identified as an arterial roadway. Verboort Road is also identified as an arterial roadway.

The Highway 47/Verboort & Purdin Road intersection is currently operating within the minimum acceptable operational standard. Current level of service is A/D meaning Highway 47 operates with a level of service of A and the Verboort & Purdin Road segment operates with a level of service of D. Minimum acceptable level of service in the Transportation System Plan is D.

The Highway 47/Verboort & Purdin Road intersection is currently operating with a vehicle-to-capacity ratio of 0.71. The minimum acceptable vehicle-to-capacity ratio adopted by the Oregon Department of Transportation is 0.99. Therefore, the Highway 47/Verboort & Purdin Road intersection is currently operating within the acceptable standard.

The Transportation System Plan adopted in 2014 did not contemplate that the Oregon Legislature would add the Purdin Road urban reserve area to the urban growth boundary. As an urban reserve, it was anticipated that development would not occur until after the twenty year planning period covered by the Transportation System Plan. Therefore, the Transportation System Plan did not anticipate the level of traffic that could be generated by development within the urban reserve.

Now that the urban reserve area is within the urban growth boundary the City must adopt Comprehensive Plan designations for the Purdin Road area in order to comply with Title 11 of the Metro Regional Functional Plan. Since no traffic analysis for this area was completed the City assessed potential traffic impacts based on a "worst case" land use concept. This assessment indicates both the Hwy. 47 intersections could exceed operational standards upon build-out. Build-out may occur beyond the twenty year planning period of the Transportation System Plan.

B. Amending the TSP or Comprehensive Plan to provide transportation facilities, improvements or services adequate to support the proposed land uses consistent with the requirements of OAR 660, Division 12.

Response: It is anticipated the Hwy. 47 intersections will fail upon build out of the Purdin Road urban growth area. To address this issue the Transportation System Plan could be amended to add a project for additional capacity including additional channelization to the David Hill Road and Purdin & Verboort Road roundabouts. This will need to be coordinated with ODOT and Washington County. . A planning level cost estimate in current dollars is approximately \$5 million for each intersection.

C. Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.

Response: The preferred land use concept for the Westside planning area was adjusted from the “worst case” scenario to the Planning Commission recommendation. This reduced dwelling capacity with an expected commensurate reduction in demand for automobile travel and potential generation and impact to the transportation system.

D. Amending the TSP to modify the planned function, capacity or performance standards of the transportation facility.

Response: Amending the TSP to modify the planned function, capacity or performance standards of the transportation facilities affected by development in the Westside planning area is not proposed.

E. Providing other measures as condition of development or through a development agreement or similar funding method, including transportation system management measures, demand management or minor transportation improvements. Local governments shall as part of the amendment specify when measures or improvements provided pursuant to this subsection will be provided

Response: Transportation study may be required by the Director if trip generation is expected to exceed 50 peak hourly trips or required by the Oregon Department of Transportation (§10.1.225(D)). Development approval could be conditioned on mitigating potential traffic impacts to operation of Oregon Highway 47.

(3) Notwithstanding Section (1) and (2) of this rule, a local government may approve an amendment that would significantly affect an existing transportation facility without assuring the allowed land uses are consistent with the function, capacity, and performance standards of the facility where:

A. The facility is already performing below the minimum acceptable performance standard identified in the TSP or Comprehensive Plan on the date the amendment application is submitted.

Response: Oregon Highway 47 is operating within acceptable parameters identified in the Transportation System Plan and Comprehensive Plan. The minimum acceptable level of service on non-state highways is Level of Service D. The minimum acceptable level of service on state facilities is a vehicle-to-capacity ratio of 1.0 or less. A list is provided below indicating current level of service and vehicle-to-capacity ratios for facilities within or affected by the study area.

- Thatcher Road/Watercrest Road: A/B v/c 0.03
- Gales Creek Road/Thatcher Road: A/C v/c 0.35
- Highway 47/Purdin Road: A/D v/c 0.71
- Highway 47/David Hill Road: not identified

B. In the absence of the amendment, planned transportation facilities, improvements and services as set forth in Section (4) of this rule would not be adequate to achieve

consistency with the identified function, capacity or performance standard for that facility by the end of the planning period identified in the adopted TSP.

Response: The Transportation System Plan identifies modeled 2035 PM Peak Hour traffic operations for the Highway 47/Verboort & Purdin Road and Highway 47/David Hill Road intersections. The Highway 47/Verboort Road & Purdin Road intersection is projected to operate at a level of service of A/F and a vehicle-to-capacity ratio of 2.00 in 2035. In the absence of the amendment the facility still does not meet operational standards.

The Highway 47/David Hill Road intersection is projected to operate at a level of service of F and a vehicle-to-capacity ratio of 1.54 in 2035 based on a signalized intersection. In the absence of the amendment the facility still does not meet operational standards.

C. Development resulting from the amendment will, at a minimum, mitigate the impacts, of the amendment in a manner that avoids further degradation to the performance of the facility by the time of the development through one or a combination of transportation improvements or measures.

Response: Development allowed by the amendment will be reviewed for potential impacts on a case-by-case basis consistent with the Development Code. Development approval may be conditional to mitigate potential impacts including traffic.

D. The amendment does not involve property located in an interchange area as defined in paragraph (4)(d)(C).

Response: The amendment does not involve property located in an interchange area as defined in paragraph (4)(d)(C).

E. For affected state highways, ODOT provides a written statement that the proposed funding and timing for the identified mitigation improvements or measures are, at a minimum, sufficient to avoid further degradation to the performance of the affected state highway.

Response: The proposed amendment potentially affects a state highway (Highway 47). If mitigation is necessary a written statement will be prepared that indicates funding and timing for the identified mitigation improvements are at a minimum sufficient to avoid further degradation to the performance of Highway 47.

(4) Determinations under the TPR shall be coordinated with affected transportation facility and service providers and other affected local governments.

Response: Both ODOT and Washington County have been involved in preparation of the Westside Master Plan. ODOT was contacted and a meeting was requested to discuss potential traffic impacts associated with the Westside Master Plan.

A. In determining whether an amendment has a significant effect on an existing or planned transportation facility shall rely on existing transportation facilities and services

and on the planned transportation facilities, improvements and services set forth in the local transportation system plan.

Response: The determination of whether this amendment has a significant effect on the Highway 47 was based on improvements to the Highway 47/Verboort & Purdin Road and Highway 47/David Hill Road intersections currently underway. This includes construction of single lane roundabouts at each intersection. Based on information from Federal Highways a single lane roundabout has an approach capacity of approximately 1,800 vehicles per hour. Documentation indicates that the flow rate downstream of the merge point (between the entry and next exit) should not be allowed to exceed 1,800 vehicles per hour. Exceeding this threshold may indicate the need for a double-lane entry. Exit flows exceeding 1,200 vehicles per hour may indicate the need for a double-lane exit.

The Oregon Transportation Planning Rule implements Oregon Statewide Planning Goal 12, Transportation. The Transportation Planning Rule (OAR 660-012-0060) provides a framework for evaluation of comprehensive plan and zoning map amendments for possible impacts to transportation systems.

The Westside Plan proposes amendments to the Forest Grove Comprehensive Plan map. Therefore, a Transportation Planning Rule analysis must be completed to identify potential impacts to the transportation system and recommended measures to mitigate identified impacts.

Significant Effect Determination

Response: Development in the Purdin Road Urban Growth Area will have a significant effect on the state highway system. Total trip ends for Traffic Analysis Zone 1392 (the Purdin Road planning area) are expected to see a significant increase compared with the adopted TSP since this area was not included within the UGB at the time the TSP was developed.

A single lane roundabout was assumed for the Highway 47/David Hill Road intersection based on current improvement project development activities.

Improvements to the intersection of Highway 47 and Verboort/Purdin Road are included in the analysis to address existing safety issues and future capacity needs. A single lane roundabout was assumed based on current project development activities. Improvements to this location, increasing densification in the Westside Planning area and completion of the David Hill Road extension are expected to draw traffic away from the Highway 47/Martin Road helping to address expected future congestion problems at this location.

Significant Effect Analysis

Response: The 2035 PM Peak Hour traffic operations analysis dated, November 2, 2015, for the “worst case” scenario shows a total project traffic volume of 2,464 vehicles for the Hwy. 47/Verboort Rd & Purdin Road intersection. If assumed capacity is 1,800 vehicles this intersection will be 664 vehicles over capacity at build-out.

The 2035 PM Peak Hour traffic operations analysis dated, November 2, 2015, for the “worst case” scenario shows a total projected traffic volume of 2,625 vehicles for the Hwy. 47/David Hill Rd intersection. Assuming a capacity of 1,800 vehicles this intersection will be 825 vehicles over capacity at build-out.

The revised land use alternative has a capacity of 1,895 dwelling units which is about 237 units fewer than the “worst case” scenario. This reduction in dwelling capacity could reduce traffic volume from 2,464 vehicles per hour to 2,193 vehicles per hour. This still exceeds capacity of 1,800 vehicles per hour.

Section 660-012-0060(2) requires that local governments ensure that allowed land uses are consistent with the identified function, capacity, and performance standards of the facility measured at the end of the planning period and four acceptable approaches to do so. The types of mitigation available under Section 2 of this rule include:

1. Adopting measures that demonstrate allowed uses are consistent with the planned function, capacity, and performance standards of the transportation facility.
2. Amending the TSP or comprehensive plan to provide transportation facilities, improvements or services adequate to support the proposed land uses consistent with the requirements of this division; such amendments shall include a funding plan or mechanism consistent with section (4) or include an amendment to the transportation finance plans so the facility, improvement, or service will be provided by the end of the planning period.
3. Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel through other modes.
4. Amending the TSP to modify the planned function, capacity or performance standards of the transportation facility.
5. Providing other measures as a condition of development or through a development agreement or similar funding method, including transportation system management measures, demand management or minor transportation improvements. Local governments shall as a part of the amendment specify when measures or improvements provided pursuant to this subsection will be provided.

Significant Effect Remedies

Some improvement to the Highway 47/Verboort Road and Highway 47/David Hill Road intersections may be needed by year 2035. Improvements could include added channelization at the two roundabouts. The TSP could be amended to provide transportation improvements adequate to support the proposed land uses consistent with the requirements of the Transportation Planning Rule. A planning level cost estimate in current dollars is approximately \$5 million for each intersection. Such improvements could be funded through transportation development tax SDC collections or Washington County transportation funds (MSTIP).